



1

SEQUENCE LISTING

<110> TAUCH, ANDREAS
KALINOWSKI, JORN
PUHLER, ALFRED
THIERBACH, GEORG

<120> PLASMIDS FROM CORYNEBACTERIUM GLUTAMICUM AND USE THEREOF

<130> 21123/274355

<140> 09/704,725

<141> 2000-11-03

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<170> PatentIn Ver. 2.1

<210> 1

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<212> DNA

<213> Corynebacterium glutamicum

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<222> (228) .. (824)

<223> parA

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<222> (1829) .. (3295)

<223> repA

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Met Ser Ile
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Leu Thr Ile Ala His Thr Lys Gly Gly Val Gly Lys Thr Thr Ser Ala
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Trp Tyr Cys Gln His Lys His Val Arg Arg Leu Ala Asp Leu Leu Lys	
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<213> *Corynebacterium glutamicum*

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Val	Thr	Leu	Ile	Asp	Ser	Asp	Ala	Gln	Gly	Thr	Ala	Thr	Ala	Trp	Ala	
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His	Ala	Ala	Glu	Glu	Ala	Gly	Asp	Thr	Phe	Pro	Trp	Pro	Ile	Ile	Thr	
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Ala	Ala	Thr	Pro	Ala	His	Leu	Ala	Arg	Thr	Leu	Asp	Gly	His	Asn	Gly	
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Leu	Val	Ile	Val	Asp	Thr	Pro	Pro	Gly	Gly	Tyr	Glu	Val	Ile	Glu	Thr	
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Pro	Gln	Arg	Leu	Tyr	Gly	Tyr	Asp	Glu	Leu	Leu	Thr	Glu	Leu	Leu	Ser	
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<213> *Corynebacterium glutamicum*

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Tyr	Ala	Ala	Val	Leu	Val	Val	Asp	Ile	Asp	Gln	Pro	Gly	Gln	Ser	Gly
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Leu	Ile	Glu	His	Asn	Leu	Gly	Pro	Ser	Trp	Val	Gly	Ile	Asn	Pro	Gln
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Lys	Ser	Gly	Lys	Ser	Arg	His	Met	Ser	Leu	Leu	Ala	Ala	Thr	Ser	Arg
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Ala	Leu	Gly	Glu	Leu	Leu	Asp	His	Asp	Pro	Asn	Phe	Ser	His	Arg	Phe
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Phe	Ser	Ser	Gly	Arg	Glu	Leu	Ile	Asn	Ala	Val	Lys	Thr	Arg	Arg	Glu
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Glu	Ala	Gln	Ala	Phe	Lys	Ala	Leu	Ala	Gln	Asp	Val	Glu	Thr	Glu	Leu
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Arg Tyr Ala Leu Lys Thr Cys His Arg Leu Arg Ala Ala Gly Glu Arg
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Met Thr Asp Ala Ala Ile Ile Asp Ala Tyr Glu His Ala Tyr Asn Val
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Arg Asp Arg Gln Thr Met Ala Arg Arg Val Arg Gly Tyr Val Thr Gln
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Ser Lys Thr Ser Met Gly Ala Ser Ala Pro Pro Gly Arg Ala Thr Ser
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Leu Glu Lys Leu Ala Asp Ala Ser Lys Lys Arg Ser Arg Lys Ala Lys
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Gly Thr Arg Leu Thr Ile Ala Gly Trp Val Met Ser Val Glu Ser Glu
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Thr Gly Ala Trp Pro Thr Ile Ala Glu Ala Met Val Glu Phe Ser Val
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<210> 4

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<212> DNA

<213> *Corynebacterium glutamicum*

<220>

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Met Asp Asp His Thr Leu
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Ser Lys Thr Leu Ile Gln Ala Thr Phe Pro His Ser Ala Lys Ala Gly
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Lys Glu Leu Val Leu Val Asn Gly His Thr Thr Val Thr Met Tyr Ser
55 60 65 70

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Arg His Gly Leu Pro Tyr Gly Ser Trp Pro Arg Leu Ile Met Cys Trp
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Ser	Ile	Asn	Ser	Val	Thr	Ser	Ile	Phe	Gly	Pro	Val	Ala	Phe	Thr	Thr	325	330	335
Ile	Phe	Ala	Leu	Thr	Tyr	Ile	Asn	Ala	Asp	Gly	Phe	Leu	Trp	Leu	Cys	340	345	350
Ala	Ala	Ala	Leu	Tyr	Val	Pro	Cys	Val	Ile	Leu	Ile	Met	Arg	Gly	Thr	355	360	365
Ala	Ala	Ser	Pro	Lys	Phe	Gly	Ser	Trp	Ala	Ser	Gly	Asp	Ser	Met		370	375	380

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<211> 279

<213> Corynebacterium glutamicum

Met Met Ser Asn Ser Ile His Thr Gly Ile Ser Arg Gln Leu Ser Gln
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His Leu Tyr Gly Ser Ala Ile Asp Gly Gly Leu Lys Pro Tyr Ser Asp
35 40 45

Ile Asp Leu Leu Val Thr Val Asp Ala Arg Leu Asp Glu Ala Thr Arg
50 55 60

Arg Ser Leu Met Leu Asp Phe Leu Asn Ile Ser Ala Pro Pro Cys Glu
65 70 75 80

Ser Ser Ile Leu Arg Pro Leu Glu Val Thr Val Val Ala Cys Asn Glu
85 90 95

Val Val Pro Trp Arg Tyr Pro Ala Arg Arg Glu Leu Gln Phe Gly Glu
100 105 110

Trp Leu Arg Glu Asp Ile Leu Glu Gly Val Phe Glu Pro Ala Ala Leu
115 120 125

Asp Ala Asp Leu Ala Ile Leu Ile Thr Lys Ala Arg Gln His Ser Ile
130 135 140

Ala Leu Val Gly Pro Val Ala Gln Lys Val Phe Met Pro Val Pro Glu
145 150 155 160

His Asp Phe Leu Gln Val Leu Ser Asp Thr Leu Lys Leu Trp Asn Thr
165 170 175

His Glu Asp Trp Glu Asn Glu Glu Arg Asn Ile Val Leu Thr Leu Ala
180 185 190

Arg Ile Trp Tyr Ser Thr Glu Thr Gly Gly Ile Val Pro Lys Asp Val
195 200 205

Ala Ala Glu Trp Val Leu Glu Arg Leu Pro Ala Glu His Lys Pro Ile
210 215 220

Leu Val Glu Ala Arg Gln Ala Tyr Leu Gly Leu Cys Lys Asp Ser Leu
225 230 235 240

Ala Leu Arg Ala Asp Glu Thr Ser Ala Phe Ile Gly Tyr Ala Lys Ser
245 250 255

Ala Val Ala Asp Leu Leu Glu Lys Arg Lys Ser Gln Thr Ser His Ile
260 265 270

Cys Asp Gly Ala Lys Asn Val
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 Met Ala Gln Lys Gln Ala Arg Leu Asp Arg Ala Ala Val Leu Arg Gly
 1 5 10 15

gcg agg cat gtg ctc aat aac acg ggg atc gac ggt ttc acc aca cgg 96
 Ala Arg His Val Leu Asn Asn Thr Gly Ile Asp Gly Phe Thr Thr Arg
 20 25 30

gcg ctg gct gcg cat ctg cgg gtg cag cag cca gcg ctc tac tgg cac 144
 Ala Leu Ala Ala His Leu Arg Val Gln Gln Pro Ala Leu Tyr Trp His
 35 40 45

ttt cgg aca aag gcc cac ctg ctc gga tcg ctc gca gct gat gtg ctt 192
 Phe Arg Thr Lys Ala His Leu Leu Gly Ser Leu Ala Ala Asp Val Leu
 50 55 60

gat cgc gaa cac cac gcc tca ctc cca gag tca ggg gag cgc tgg gac 240
 Asp Arg Glu His His Ala Ser Leu Pro Glu Ser Gly Glu Arg Trp Asp
 65 70 75 80

gac ttt ctc ctg cgc aac gcg cgg agc ttc cgg aca gcg ctt ctg gca 288
 Asp Phe Leu Leu Arg Asn Ala Arg Ser Phe Arg Thr Ala Leu Leu Ala
 85 90 95

gtc cgg gat gga gca cgg ctg cac gca gag ttt cac cgt caa aag agt 336
 Val Arg Asp Gly Ala Arg Leu His Ala Glu Phe His Arg Gln Lys Ser
 100 105 110

gac cag atg cca gcg ggc tcg gat gcc ccc gaa agt cag atc gag ttt 384
 Asp Gln Met Pro Ala Gly Ser Asp Ala Pro Glu Ser Gln Ile Glu Phe
 115 120 125

ctc gtg tcc gaa gga ttc gct gag ggc tct gcg gtc cga gct ctc atg 432
 Leu Val Ser Glu Gly Phe Ala Glu Gly Ser Ala Val Arg Ala Leu Met
 130 135 140

gct atc agc cgc tat acg gtc ggt ttc gta cta gaa gaa caa aca gcg 480
 Ala Ile Ser Arg Tyr Thr Val Gly Phe Val Leu Glu Glu Gln Thr Ala
 145 150 155 160

ctc gac aac gga tgt gag cct gtc gat caa gac cta gat ttc gag ttc 528
 Leu Asp Asn Gly Cys Glu Pro Val Asp Gln Asp Leu Asp Phe Glu Phe
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570

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<213> *Corynebacterium glutamicum*

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Met Ala Gln Lys Gln Ala Arg Leu Asp Arg Ala Ala Val Leu Arg Gly
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Ala Arg His Val Leu Asn Asn Thr Gly Ile Asp Gly Phe Thr Thr Arg
 20 25 30

Ala Leu Ala Ala His Leu Arg Val Gln Gln Pro Ala Leu Tyr Trp His
 35 40 45

Phe Arg Thr Lys Ala His Leu Leu Gly Ser Leu Ala Ala Asp Val Leu
 50 55 60

Asp Arg Glu His His Ala Ser Leu Pro Glu Ser Gly Glu Arg Trp Asp
 65 70 75 80

Asp Phe Leu Leu Arg Asn Ala Arg Ser Phe Arg Thr Ala Leu Leu Ala
 85 90 95

Val Arg Asp Gly Ala Arg Leu His Ala Glu Phe His Arg Gln Lys Ser
 100 105 110

Asp Gln Met Pro Ala Gly Ser Asp Ala Pro Glu Ser Gln Ile Glu Phe
 115 120 125

Leu Val Ser Glu Gly Phe Ala Glu Gly Ser Ala Val Arg Ala Leu Met
 130 135 140

Ala Ile Ser Arg Tyr Thr Val Gly Phe Val Leu Glu Glu Gln Thr Ala
 145 150 155 160

Leu Asp Asn Gly Cys Glu Pro Val Asp Gln Asp Leu Asp Phe Glu Phe
 165 170 175

Gly Leu Val Ala Met Val Glu Gly Leu Ala Ser Lys Arg
 180 185